

IN THE CLAIMS

102(b) 1. (Currently Amended) A heating and air conditioning installation for a vehicle comprising:

a first fluid circuit comprising a first heat exchanger, said first heat exchanger is configured and disposed to warming warm an air flow by transferring heat from the a vehicle engine;

a second fluid circuit comprising a second heat exchanger, said second heat exchanger is configured and disposed to cooling cool the air flow;

7 a third fluid circuit comprising a third heat exchanger, said third heat exchanger is configured and disposed to warming warm the air flow;

wherein the second heat exchanger is disposed in a separate channel from the first heat exchanger and the third heat exchanger ~~are downstream the first heat exchanger in relation to the air flow.~~

2. (Canceled)

3. (Withdrawn) A heating and air conditioning installation according to Claim 1, wherein the downstream heat exchanger(s) forms/form a structural unit with the first heat exchanger, the respective heat exchangers being thermally isolated from one another.

102(b) 4. (Previously Presented) A heating and air conditioning installation according to Claim 1, wherein the second and the third fluid circuits are coupled to one another, one of said second and third fluid circuits forming a bypass to the other fluid circuits.

5. (Previously Presented) A heating and air conditioning installation according to Claim 4, wherein a fluid-flow and/or state control member are provided in a transition region between the second and third fluid circuit.

6. (Withdrawn) A heating and air conditioning installation according to Claim 5, wherein at least one fluid-flow and/or state control member acts as a two- or multi-stage throttle.

7. (Withdrawn) A heating and air conditioning installation according to Claim 1, wherein an air-flow control member is connected upstream of at least one of said first, second and third heat exchangers for diverting or delivering air with respect to said at least one heat exchanger.

8. (Previously Presented) A heating and air conditioning installation according to Claim 1, wherein a phase change of the fluid takes place in at least one of said first, second and third heat exchanger.

9. (Canceled)

10. (Currently Amended) A heating and air conditioning installation comprising:
a heat exchanger associated with an engine, the heat exchanger being adapted to selectively warm an air flow;
a cooling fluid circuit comprising a cooling heat exchanger adapted to selectively cool the air flow;
an auxiliary heating fluid circuit coupled to the cooling fluid circuit, the auxiliary heating fluid circuit comprising an auxiliary heat exchanger connected in parallel to the cooling heat exchanger and being adapted to selectively warm the air flow; and

a compressor associated with the cooling and auxiliary heating fluid circuits, the compressor being disposed and configured to selectively deliver fluid to the cooling heat exchanger, the auxiliary heat exchanger, or both the cooling heat exchanger and the auxiliary heat exchanger, wherein the cooling heat exchanger is disposed in a separate channel from the heat exchanger and the auxiliary heat exchanger.

11. (Previously Presented) The heating and air conditioning installation in claim 10, further comprising:

a three-way valve situated downstream from the compressor selectively configured to direct the fluid to the cooling fluid circuit in a first mode, to direct the fluid to the auxiliary heating circuit in a second mode, and to direct the fluid to both the auxiliary heating circuit and the cooling fluid circuit simultaneously in a third mode.

12. (Previously Presented) The heating and air conditioning installation in claim 11, further comprising:

a three-way valve situated downstream from the downstream three-way valve and upstream from the compressor selectively configured to work in coordination with the downstream three-way valve to direct the fluid in the first, second, and third modes.

13. (New) The heating and air conditioning installation in claim 1, wherein the first heat exchanger and the third heat exchanger are disposed in a heating air channel and the third heat exchanger is situated downstream from the first heat exchanger in terms of air flow.

engine coolant
condenser
condenser
engine coolant heater

Serial No. 09/743,537

Docket No. 1948-4745

Amendment dated September 19, 2003

Reply to Office Action of 05/20/03

14. (New) The heating and air conditioning installation in claim 11, wherein the heat exchanger and the auxiliary heat exchanger are disposed in a heating air channel and the auxiliary heat exchanger is situated downstream from the heat exchanger in terms of air flow.
